

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
1 September 2005 (01.09.2005)

PCT

(10) International Publication Number
WO 2005/079331 A2

(51) International Patent Classification: Not classified

(21) International Application Number:
PCT/US2005/004513

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/544,788 13 February 2004 (13.02.2004) US
60/548,370 27 February 2004 (27.02.2004) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:
US 60/544,788 (CIP)
Filed on 13 February 2004 (13.02.2004)
US 60/548,370 (CIP)
Filed on 27 February 2004 (27.02.2004)

(71) Applicant (for all designated States except US):
DNAPRINT GENOMICS, INC. [US/US]; 900 Co-
coanut Avenue, Sarasota, FL 34236 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): FRUDAKIS, Tony.
N. [US/US]; 3707 Plumosa Terrace, Bradenton, FL 34210
(US).

(74) Agent: HAILE, Lisa, A., J., D.; DLA Piper Rudnick
Gray Cary US LLP, 4365 Executive Drive, Suite 1100, San
Diego, CA 92121-2133 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US (patent), UZ, VC, VN, YU,
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR INFERRING EYE COLOR AND HAIR COLOR

(57) Abstract: Methods for inferring eye color or eye shade of an individual from a nucleic acid sample of the individual by detecting the nucleotide occurrence of an eye color related single nucleotide polymorphism (SNP) as set forth in SEQ ID NOS:1 to 7 and, optionally,, SEQ NOS:8 to 10 and/or SEQ ID NOS:26 to 48, are provided. Also provided are methods for inferring hair color or hair shade of an individual from a nucleic acid sample of the individual by detecting the nucleotide occurrence of a hair color related SNP as set forth in SEQ ID NOS:11 to 25. Methods for inferring eye color/shade and hair color/shade of an individual from a protein sample of the individual by detecting an amino acid residue encoded by the nucleotide occurrence of an eye color related SNP or a hair color related SNP, respectively, also are provided. In addition, compositions, including oligonucleotides and antibodies, useful for practicing such methods are provided, as are kits for performing the methods.



WO 2005/079331 A2